

D 2 3/3 21. (Twice Amended) The kit of claim 21, wherein each probe set contains from 50 to 10,000 different different-sequence, single-stranded oligonucleotide probes.

REMARKS

Reconsideration of the rejections set forth in the Office action mailed January 10, 2001 is respectfully requested. Claims 1, 21-25, and 27-28 are currently pending. By the present amendment, claims 20, 29, 30 and 32 are cancelled.

I. Amendments

Claim 22 has been redrafted in independent form, incorporating the preamble and limitations (i) and (ii) of parent claim 20.

Claim 22 recites that the probes of a set "have a selected length" and "have annealing temperatures whose maximum and minimum values differ from each other by no more than 1°C." Because limitations (iii) and (iv) of parent claim 20 are redundant to, or broader than, these limitations, they have not been included in claim 22.

Claim 21 is amended to depend from claim 22. No new matter is added by any of the amendments.

In accordance with 37 CFR §1.116, the amendments either cancel claims or adopt the suggestions of the Examiner. The applicants therefore request that the amendments be entered and the claims passed to allowance.

II. Rejections under 35 U.S.C. §112, Second Paragraph

Claims 20-25, 27-30 and 32 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner objected to the term "subset" in claim 20. The claim recited that "each probe set is a subset of a mixture comprising oligonucleotides of all possible sequences of a selected length".

The applicants do not feel that the term "subset" is indefinite, since it is a well known term, meaning some portion of a whole set, the whole set in this case being "oligonucleotides of all possible sequences of a selected length". Nonetheless, the term "subset" is no longer employed in amended claim 22. As noted above, amended claim 22 recites, more precisely, that the different-sequence probes of a set have a selected length and "have annealing temperatures whose maximum and minimum values differ from each other by no more than 1°C."

In view of the foregoing, the applicants submit that the claims, as amended, comply with the require-

ments of 35 U.S.C. §112, second paragraph, and request that the Examiner withdraw the rejections under this section.

III. Rejections under 35 U.S.C. §102(b) / 103(a)

Claims 20, 21, 26, 28 and 29 were rejected under 35 U.S.C. §102(b) as being anticipated, or, alternatively, under 35 U.S.C. §103(a) as being obvious over, Pease *et al.* (PNAS USA 91:5022, 1994).

Claims 22-25 and 30 were held to be allowable if rewritten to include all the limitations of the base claim (20).

As stated above, claim 22 has been redrafted in independent form, incorporating the non-redundant limitations of parent claim 20. Claims 20, 26, 29 and 30 have been cancelled, and claims 21-25, 27 and 28 depend, either directly or indirectly, from claim 22.

As discussed in the previous response, Pease *et al.* describes probe matrices which contain either a single sequence, two different sequences, or a complete set of all possible sequences of a given length. As implicitly acknowledged by the Examiner in his allowance of claim 22, the reference does not show or suggest a probe set of different-sequence, single stranded oligonucleotide probes having annealing temperatures whose maximum and minimum values differ from each other by no more than 1°C.

In view of the above, the applicant respectfully requests the Examiner to withdraw the rejections under 35 U.S.C. §102(b)/103.

IV. Obviousness-Type Double Patenting Rejection

Claim 1 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being directed to an invention not patentably distinct from claim 1 of commonly assigned U.S. Patent No. 5,750,341.

A Terminal Disclaimer prepared in accordance with 37 CFR §1.321(b) and (c) is enclosed. The signed Terminal Disclaimer will obviate the above obviousness-type double patenting rejection.

V. Conclusion

In view of the foregoing, the applicant submits that the claims now pending are now in condition for allowance. A Notice of Allowance is, therefore, respectfully requested.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 324-0880.

No further fees are believed necessary with this communication. However, the Commissioner is hereby authorized and requested to charge any deficiency in fees herein, or credit any overpayment, to Deposit Account No. 04-0531.

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Claims as amended April 5, 2001

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22. (Twice Amended) [The kit of claim 20] A kit for DNA sequence analysis, the kit comprising one or more sets of oligonucleotide probes, wherein

(i) each probe set contains at least 50 different-sequence, single-stranded oligonucleotide probes,

(ii) the oligonucleotide probes of a set have a selected length of up to 12 nucleotides, and

(iii) [wherein,] for at least one said probe set, the different-sequence, single stranded oligonucleotide probes in that set have annealing temperatures whose maximum and minimum values differ from each other by no more than 1°C.

21. (Twice Amended) The kit of claim [20] 22, wherein each probe set contains from 50 to 10,000 different different-sequence, single-stranded oligonucleotide probes.